



MAG1500 Lifter

Technical Specifications



Automated Pallet Transport Across Facilities

Sequenced & Timed Delivery to Production Lines

Sterile and Low-Contact Movement in Hygiene-Sensitive Zones

Raw Material and Packaging Replenishment

Performance

Max load	1500 kg
Max speed	1.5 m/s
Acceleration (full payload)	0.1 m/s ² (flat surface)
Rotation Speed	0.4 rad/sec
Lifting Height	60 ± 2 mm
Navigation Accuracy	± 25 mm (Linear) ± 1 deg (Angular)
Climb Grade	≤5 deg (gradual)
Docking Accuracy (Linear)	<30 mm (Laser Based Straight Docking) <10mm (Tape based Docking)
Docking Distance	1.5m

Docking Accuracy (Angular)	2 deg (Laser Based Straight Docking) 0.5 deg (Tape Based Docking)
Loading / Unloading Time	50 sec (Laser Based Straight Docking) Docking & Undocking: 20 sec 15 sec Loading: 10 sec Pallet Detection: 5 sec 35 sec (Tape Based Docking) Docking & Undocking: 10 sec 10 sec Loading: 10 sec Pallet Detection: 5 sec
Minimum Door Width	30 cm (on each side full speed) 30 cm (on one side 0.3m/s, with low safety)

Frame & Build

Dimension	1330*1052*420 mm (Customizable)
Robot Base Weight	375 kg (±10)
Ground Clearance	30mm
Turning Radius	0 deg

Supported Payload	Pallets, Racks and Cages
Traversable gap	30mm
Suspension	Dual spring system

Environment

Temperature	0-50 (Indoor Use Only - No Water on Floor) IP20 Rated
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Humidity	10-95% non-condensing
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Battery & Charging

Battery Chemistry	LiFePO4
Battery Capacity	60 Ah
Battery Running time	8 hrs

Full Charge Time	2 hrs
Battery Life	1500 Full Charge Cycles
Battery Voltage	48V

Sensing & Indication

Safety Scanning Laser	360-degree view, 2 × 2D Safety-rated LiDAR (Front & Back) Class 1 Safety Rated Laser, PLd safety per ISO13849-1
Emergency Stop	4

Sensors	1 x Intel D345 3D camera, 2 x Mechanical Bumper (Front & Back)
Indicators	4 x LEDs on corners

Processing & Communication

Computing Unit	High Performance Computer with 16GB RAM and 64GB SSD
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Indicators	4 x LEDs on corners
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Interface

Screen / Touch Panel	4.3 inch, 800*480 pixel resistive touch screen
Toggle Button	On / Off
Brake Bypass Switch	Engage/Disengage
Resume Button	To resume after e-stop release

Start Button	System Start
Auto/Manual Key	Toggle between auto and manual modes
I/O	1 X RJ45 LAN, 1 x Manual charging slot, 1 Joystick Port

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